

## **REMARKS**

This paper is presented in response to the Office Action. No claims are canceled, amended or added by this paper. Claims 1-8 and 15-21 were canceled in a previous paper. Claims 9-14 and 22-28 remain pending.

Reconsideration of the application is respectfully requested in view of the aforementioned amendments to the claims and the following remarks. For the convenience and reference of the Examiner, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

### **I. General Considerations**

Applicant notes that the remarks, or a lack of remarks, presented herein are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicant: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicant reserves the right to challenge the purported teaching and asserted prior art status of the cited references at any appropriate time.

### **II. Rejection of Claims 9-14 and 22-28 under 35 U.S.C. § 103(a)**

The Examiner has rejected claims 9-14 and 22-28 under 35 U.S.C. § 103(a) as being unpatentable over US Pub. No. 2002/0064193 to Diaz ("*Diaz*") in view of US Pub. No. 2003/0138008 to Riaziat et al. ("*Riaziat*"). Applicant respectfully disagrees.

Applicant respectfully notes at the outset that in order to establish a *prima facie* case of obviousness, it is the burden of the Examiner to demonstrate that three criteria are met: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a reasonable expectation of success; and third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP* § 2143.

**a. claims 9-14**

In rejecting claims 9-14, the Examiner has conceded that “Diaz does not teach an additional PNP current source and inductor to be coupled to the second switch, or the laser diode to be driven differentially.” The Examiner goes on to allege, however, that “Riaziat teaches a laser driver which uses a differentially driven laser diode ([0005])...” and concludes that “It would have been obvious ... to couple an additional identical PNP current mirror and inductor of Diaz (obvious to duplicate existing parts ...) ... to allow for differential driving of the laser diode (a well known configuration, see Riaziat ([0005]) allowing for reduction of parasitics when used in conjunction with transistor outline packaging (Riaziat, [0005]).” Applicant respectfully submits that, as discussed below, this rejection is problematic for a variety of reasons.

For example, the Examiner has asserted that it would be obvious to duplicate the “...PNP current mirror and inductor of Diaz (obvious to duplicate existing parts ...) ... to allow for differential driving of the laser diode...” However, *Diaz* states, with reference to the arrangement upon which the Examiner relies (see Figure 13a of *Diaz*), that “When a PNP current mirror circuit having an NPN sink, such as the one that may be implemented with PNP transistors 824, 836 and NPN transistors 830, 838 of Fig. 13A, is used as a current source to drive the laser (e.g. 840) an undesirable low frequency dip may occur in an AC magnitude response.” Paragraph [0088]. *Emphasis added.* In light of this disclosure in *Diaz* with respect to the arrangement of Figure 13A, upon which the Examiner has relied in making the rejection, Applicant submits that it is not apparent that one of ordinary skill would be inclined to make the purportedly obvious modification advanced by the Examiner. If anything, this disclosure from *Diaz* would seem to counsel against the modification that the Examiner has proposed. Correspondingly, the assertion of the Examiner that it is “...obvious to duplicate existing parts...” is not well founded.

Further, while the Examiner has asserted that modification of the *Diaz* device to provide for a differential driving function as purportedly disclosed in *Riaziat* would be obvious in order to “...[allow] for reduction of parasitics when used in conjunction with transistor outline packaging...,” *Diaz* purports to disclose arrangements calculated to provide desirable effects with respect to control of parasitics. By way of example, *Diaz* discloses that:

“The control laser is useful in high-speed applications such as Gigabit Ethernet applications or other applications where repeated bit streams are limited

in number such that low speed photodetectors are not practical to detect average and peak to peak values for feedback purposes. The capability to use slower photodetector diodes may result in simplified assembly and manufacture, which in turn may lead to reduction in cost. The lower frequency parameter detection also requires reduced high speed considerations such as impedance matching, transmission lines, and issues associated with parasitic capacitance, inductance etc.”

*Paragraph [0062]. Emphasis added.*

Additionally, *Diaz* provides that:

“The operations at lower frequency also typically reduces the need to resolve issues related to impedance matching, transmission lines, and issues associated with parasitic capacitance, inductance and the like.” *Paragraph [0072]. Emphasis added.*

Inasmuch as *Diaz* purports to disclose devices that have desirable effects with respect to parasitics, it is not clear why one of ordinary skill would be motivated to make the allegedly obvious combination advanced by the Examiner. For example, it is not apparent that the allegedly obvious modification would provide any benefit or advantage beyond what is already purportedly implemented in connection with the *Diaz* device. In any case, the Examiner has not provided any evidence to suggest that the *Diaz* device suffers from parasitics such as might be remedied by the purported disclosure of *Riaziat*. In the absence of such evidence, the obviousness rejection would seem to constitute, in essence, an ‘obvious to try’ rejection. It is well established, however, that ‘obvious to try’ is not the correct standard under 35 U.S.C. § 103. See, e.g., *Ex parte Obukowicz*, 27 USPQ2d 1063 (BPAI 1992), 1065 (citing *In re O’Farrell*, 853 F.2d 894, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988)), and *In re Lindell*, 385 F.2d 453, 155 USPQ 521 (CCPA 1967).

In connection with the foregoing, Applicant notes as well that while *Riaziat* refers to “... a ‘differential’ drive approach...” purportedly used in connection with “TO-can packages,” the Examiner has not established that the *Diaz* device is concerned with implementations in the form of TO-packages. Thus, the Examiner has not established that the disclosure of *Riaziat* is germane to the *Diaz* device.

Further, Applicant notes that the Examiner has asserted, with respect to claim 11, that “Diaz further teaches the switch to open and close in response to a data signal (fig. 13a through input #832), also inherent that a switch would open and close in response to a data signal.”

Notwithstanding this assertion, Applicant respectfully notes that inherency is not readily established. For example, as noted in MPEP § 2112, the Examiner must provide rationale or evidence showing inherency. In particular, “The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” *In re Rijckaert*, 9 F.3d 1531, 1534 28 USPQ 2d 1955, 1957 (Fed. Cir. 1993) (emphasis in original). Moreover, the Court of Appeals for the Federal Circuit has noted that “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described by the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a thing *may* result from a given set of circumstances is *not* sufficient’.” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ 2d 1949, 1950-51 (Fed. Cir. 1999) (emphasis added).

Finally, “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex Parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

Inasmuch as the Examiner has failed to provide any rationale or evidence demonstrating the inherency of the limitation of claim 11 concerning the response of a switch to a data signal, the rejection of claim 11 lacks an adequate basis.

With respect, finally, to claim 12, the Examiner has asserted that *Diaz* discloses the claimed invention, but the Examiner has failed to cite any portion of *Diaz* in support of the rejection. Accordingly, Applicant submits that the rejection of claim 11 lacks an adequate basis.

In light of the foregoing discussion, Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claim 9 at least because the Examiner has not established that the references, when combined in the purportedly obvious fashion, disclose all the limitations of claim 9, and because the Examiner has failed to establish the existence of a suggestion or motivation to make the purportedly obvious combination. Applicant thus respectfully submits that the rejection of claim 9 should be withdrawn.

By virtue of their dependence from claim 9, each of claims 10-14 requires all the limitations of claim 9. Accordingly, claims 10-14 are believed to be in allowable condition for at least the reasons set forth herein in connection with the discussion of claim 9.

**b. claims 22-28**

In the rejection of claims 22-28, the Examiner has stated that “With respect to claims 22-28, Diaz and Riazat teach the laser driver as outlined in the rejection to claim 9, and Diaz further teaches the method of operating the laser driver as in the rejection of claims 15-21, which after the addition of the second PNP current mirror and inductor (with similar operation), would read on claims 22-28.”

Inasmuch as the rejection of claims 22-28 relies on the rejection advanced by the Examiner in connection with claim 9 however, the rejection of claims 22-28 lacks an adequate basis for at least the reasons set forth herein in connection with the discussion of claim 9, and the rejection of claims 22-28 should accordingly be withdrawn.

### **CONCLUSION**

In view of the remarks submitted herein, Applicant respectfully submits that each of the pending claims 9-14 and 22-28 is in condition for allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 21<sup>st</sup> day of December, 2006.

Respectfully submitted,

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